SAM projects status

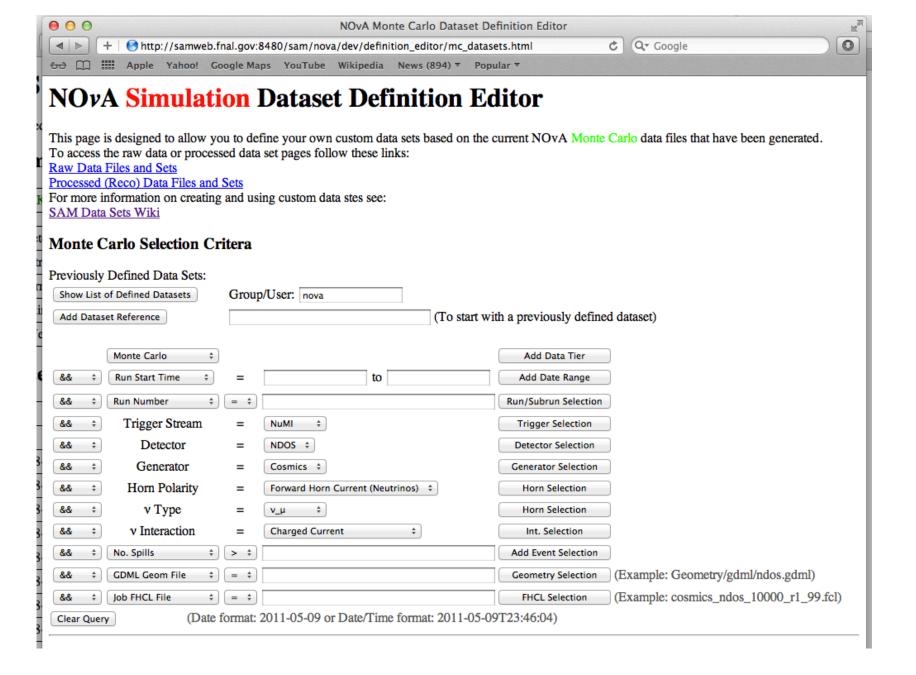
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SAMWeb motivations

- Original SAM used CORBA for client/server communication
 - Reasonable choice 15 years ago, but...
 - Complicated
 - Inflexible and inextensible interfaces
 - Clients require large libraries to use
- Technology moves on
 - HTTP basis for a standardized, flexible protocol
 - Clients built in to almost all languages
 - Off the shelf solutions for caching, load balancing, etc
 - Use of SAM by IF experiments gives us opportunity to transition to new system

SAMWeb status

- Sufficient interfaces to access files ("run projects") implemented
 - Initially just a bridge to CORBA
 - Just added to Minerva job submission (by Dennis Box).
 The same implementation should work for NOvA
- Long term objective is to remove CORBA entirely
- Currently working on implementing remaining user interfaces as direct, non-bridged
 - New file query functionality deployed for NOvA. Will switch Minerva to it soon
- Provide web browser interface for querying



File Transfer System

- Started as NOvA project to handle cataloguing and uploading of raw data from online system to disk and tape
 - Deployed at near detector for over a year
- Far detector functionality (forwarding files to intermediate location) tested, but not yet deployed
- Extending it to handle offline files
 - Files can be dropped in a directory; FTS will catalogue the metadata and copy the file to the appropriate disk and tape locations



- Recent completed transfers

Time	File name	Destination
raw		
2012-08-28 23:36:54 CDT	ndos_r00014079_s03_t02.raw	novadata:/nova/data/rawdata/NDOS/000140/14079/02
2012-08-28 23:36:53 CDT	ndos_r00014079_s03.raw	novadata:/nova/data/rawdata/NDOS/000140/14079/all
2012-08-28 23:00:30 CDT	ndos_r00014079_s00_t02.raw	/pnfs/nova/rawdata/NDOS/runs/000140/14079
2012-08-28 23:00:30 CDT	ndos_r00014079_s00.raw	/pnfs/nova/rawdata/NDOS/runs/000140/14079
2012-08-28 23:00:30 CDT	ndos_r00014079_s01_t02.raw	/pnfs/nova/rawdata/NDOS/runs/000140/14079
2012-08-28 23:00:30 CDT	ndos_r00014079_s02_t02.raw	/pnfs/nova/rawdata/NDOS/runs/000140/14079
2012-08-28 23:00:30 CDT	ndos_r00014079_s01.raw	/pnfs/nova/rawdata/NDOS/runs/000140/14079
2012-08-28 23:00:30 CDT	ndos_r00014079_s02.raw	/pnfs/nova/rawdata/NDOS/runs/000140/14079
2012-08-28 22:36:54 CDT	ndos_r00014079_s02_t02.raw	novadata:/nova/data/rawdata/NDOS/000140/14079/02
2012-08-28 22:36:53 CDT	ndos_r00014079_s02.raw	novadata:/nova/data/rawdata/NDOS/000140/14079/all

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FTS plans

- Although written for NOvA, mostly generic SAM functionality
 - Useable by any experiment that uses SAM
 - Metadata extraction requires customization
 - Plan to benefit from ART functionality to have fully self-describing files
- Implemented using SAM CORBA interface
 - Intend to rewrite using web interface; totally transparent to users